REMARKS

This amendment is responsive to the final Office Action[1] of May 5, 2005. Claims 1-36 were presented for examination and all claims were rejected. Claims 1, 17-18 and 34-36 are amended; no new matter is added - the amendments are supported by the application as filed. No claims are canceled or added. Claims 1-36 remain pending. Claims 1, 17-18 and 34-36 are independent claims.

The Examiner rejected claims 1-11, 13-14, 17-28, 30-31, and 35-36 under 35 U.S.C. § 103(a) as being unpatentable over <u>Liu et al.</u> (U.S. Patent No. 6,266,395) in view of <u>Bell Telephone Laboratories</u> ("Transmission Systems for Communications") (hereinafter "<u>Bell</u>"). The Examiner rejected claims 15-16, and 32-33 under 35 U.S.C. § 103(a) as unpatentable over <u>Liu et al.</u> in view of <u>Bell</u> and <u>Millbrandt</u> (U.S. Patent No. 6,633,545). The Examiner rejected claims 12, 29, and 34 under 35 U.S.C. § 103(a) as unpatentable over <u>Liu et al.</u> in view of <u>Bell</u>, <u>Millbrandt</u>, and <u>Tennyson</u> (U.S. Patent No. 6,466,647). Applicant respectfully traverses the rejection of all pending claims.

In the final Office Action, pages 10-11, the Examiner provides a Response to Arguments:

> "Liu et al. discloses taking measurements of an existing telephone loop and using the measurement results as inputs to equations that calculate values that determine the DSL performance of segments of the existing telephone loop. <u>The claimed 'test loops different from the existing telephone loop' is met by the use of the equations</u> of Liu et al. Rather than calculate a bit rate of an existing telephone loop directly, Liu et al. uses

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[1] The Office Action may contain a number of statements characterizing the cited reference(s) and/or the claims which Applicant(s) may not expressly identify herein. Regardless of whether or not any such statement is identified herein, Applicant(s) does not automatically subscribe to, or acquiesce in, any such statement. Further, silence with regard to rejection of a dependent claim, when such claim depends, directly or indirectly, from an independent claim which Applicant(s) deems allowable for reasons provided herein, is not acquiescence to such rejection of that dependent claim, but is recognition by Applicant(s) that such previously lodged rejection is moot based on remarks and/or amendments presented herein relative to that independent claim.

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equations that simulate an equivalent 'test loop', which is different than the physical existing loop. The equations used offer an approximation of the performance of the existing telephone loop; therefore, by using the results of the equations, which give results for a 'test loop' that is different from the existing telephone loop, the performance of the physical existing telephone loop is predicted, as claimed......There is no limitation in the claims that precludes the identified 'test loop' from being a non physical, simulation of a loop. The equations of Liu et al conform to a 'test loop', which is an equivalent loop for the existing telephone loop. There is no present limitation in the claims that limits the test loop to 'a loop upon which (physical) tests can be run'." (Emphasis added.)

As stated, the Examiner's position is that Applicant's claimed test loops are met by the equations in Liu et al. Applicant respectfully disagrees that Liu et al. discloses a "test loop" by way of the use of mathematical equations that can be used in a simulating capacity. That's not a test loop - that is a mathematically-based simulation. Applicant's undersigned representative telephoned the Examiner on June 14, 2005 and obtained clarification/confirmation of his position. As implied above, and as confirmed in that telephone conversation, the Examiner's position is that additional limitations in the claims precluding the claimed test loop from being a non-physical, simulation of a loop and limiting the tests on the test loop to physical tests would avoid Liu et al.

However, Applicant respectfully submits that the claims that were included in the response of October 26, 2004, met those alleged requirements. For example, that version of claim 1 characterized the test loop (the equivalent loop) as being "a straight loop of a particular length and a particular gauge" which is a physical loop and, therefore, does not suggest anything related to mathematical equations to be used in a simulated loop. Indeed, the "determining DSL performance for the equivalent loop" as recited in that version of claim 1 would necessarily have been constrained to make such determination by operating with information obtained from that physical loop, thereby avoiding any "non-physical, simulation of a loop" such as that allegedly

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shown in <u>Liu et al</u>. Accordingly, it is believed that the Examiner's above-expressed criteria for avoidance of the <u>Liu et al</u>. reference had been provided in the claims that were then submitted in that previous response.

Nevertheless, to advance the prosecution of this application to allowance, Applicant is accepting the guidance provided in the final Office Action and has amended the claims in accordance with the above. For example, currently amended claim 1 recites:

> A method for predicting digital subscriber line (DSL) performance on an existing telephone loop, comprising: obtaining a topological description of the existing telephone loop; identifying, as an **equivalent loop**, a test loop different from the existing telephone loop, the test loop being **limited to a** straight **physical loop** of a particular length and a particular gauge, and being equivalent to the existing telephone loop based on the topological description of the existing telephone loop; determining DSL performance for the equivalent loop by **considering physical characteristics of the equivalent loop**; and predicting DSL performance for the existing telephone loop based on the determined DSL performance for the equivalent loop. (Emphasis added.)

Claim 1 now recites a test loop which is equivalent to the existing loop and which is limited to a straight <u>physical</u> loop. Thus, there cannot be any question about the claimed test loop being something other than an alleged "simulated, mathematical equation test loop." Furthermore, the claim recites the determining of performance of the equivalent test loop by considering its <u>physical</u> characteristics while the purported "test loop" in <u>Liu et al</u>. does not have any physical characteristics. Clearly, physical characteristics of a physical loop cannot be mathematical equations of a simulated loop. Accordingly, <u>Liu et al</u>. does not disclose or suggest the subject matter of currently amended claim 1.

<u>Bell</u> does not cure this deficiency in <u>Liu et al</u>. The fact that <u>Bell</u> may disclose or teach a method of merely converting a loop containing bridge taps into a loop without bridge taps (a

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straight cable circuit) does not cure the lack of a teaching or suggestion of a different <u>physical</u> loop (an equivalent or test loop) by which estimates of performance of the existing, subscriber loop can be made by considering <u>physical</u> characteristics of the equivalent loop. Similarly, the other references cited, <u>Millbrandt</u> and <u>Tennyson</u> do not cure this deficiency in <u>Liu et al.</u>

Accordingly, claim 1 is not disclosed or suggested by any reasonable combination of any or all of the cited references and it is respectfully requested that the 35 U.S.C. § 103(a) rejection of claim 1 be withdrawn and the claim allowed. Dependent claims 2-16 depend, directly or indirectly, from claim 1 and they are allowable at least for reasons based on their dependency.

Independent claim 17 now recites *interalia* "each of the other loops being a test loop limited to a <u>physical</u> loop" and determining DSL performance "by considering <u>physical</u> characteristics of the equivalent loop", emphases added, and is allowable for the same or similar reasons as those given above.

Independent claim 18 now recites *interalia* "the different loops being limited to straight <u>physical</u> loops" and determining DSL performance by "considering <u>physical</u> characteristics of the equivalent loops", emphases added, and is allowable for the same reasons given above. Its dependent claims 19-33 are allowable, at least for reasons based on their dependency, directly or indirectly, from claim 18.

Independent claim 34 recites *interalia* "test loop limited to a <u>physical</u> loop" and determining DSL performance "by considering <u>physical</u> characteristics of the test loop", emphases added, and is allowable for the same or similar reasons as those given above.

Independent claim 35 recites *interalia* "a straight cable of a particular length and a particular gauge" which cannot be anything other than a physical entity and "determining DSL

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performance on the straight cable by considering <u>physical</u> characteristics of the straight cable",

emphasis added, wherefore, this claim is allowable for the same or similar reasons as those given

above.

Independent claim 36 recites *interalia* a test loop "limited to a <u>physical</u> loop" and

determining ADSL performance "by considering <u>physical</u> characteristics of the different, test

loop", emphases added, and is allowable for the same or similar reasons as those given above.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration of this application and the timely allowance of the pending claims.

This amendment after final should be entered because it merely adopts the limitations suggested by the Examiner in the final Office Action. It does not require further searching.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2347 and please credit any excess fees to such deposit account. The Examiner is invited to telephone the undersigned at the telephone number provided below if he feels that a telephone conversation may serve to advance the prosecution of this application.

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By: _____
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